GENERAL NOTES.

On the Constancy of Wave-Length of Spectral Lines.—The October number of the *Astrophysical Journal* contains a translation of a recent article by Professor KAYSER, in which he disposes of the question of the supposed variability of wave-length with variation of circumstances. The following sentences are extracts: "An extensive literature has already grown up on the question whether the wave-lengths of spectral lines are invariable or whether they depend on the mode of production of the spectrum, whether the density of the vapor has any effect, etc. . . . The importance of this question in terrestrial and astronomical spectroscopy leads me to make some remarks on the subject. . . . I am convinced that the differences which different observers obtain for the same line are due to the fact that they start from different standards which do not agree with each other. . . . The fact that with the same standards an accuracy of a few thousandths of an Ångstrom unit is attained, while with different standards only as many hundredths of a unit, led the International Solar Union to place upon its programme the more precise determination of the standards as one of the most pressing problems. . . . At the meeting of the Union in Paris in May, Professor AMES was able to communicate the fact that Dr. PFUND had made experiments in his laboratory with the interferometer, which proved that the wave-lengths are precisely the same, regardless of whether the spectrum was produced in the spark or in the arc, at atmospheric pressure or in a vacuum, of pure metals or of an alloy or salts. This was true without exception for all the elements investigated. Professor FABRY declared that his experiments had yielded precisely the same result. Inasmuch as the most precise method which we have was employed here, we must regard these experiments as decisive, and consider that the question of the constancy of the wave-lengths is finally settled."

Notes from "Science."—A. N. SKINNER, professor of mathematics, U. S. N., of the U. S. Naval Observatory, was retired according to law upon reaching the age of sixty-two years, on

August 12, 1907. Professor SKINNER will remain upon active duty, however, until the completion of some unfinished work on the Astronomische Gesellschaft zone — 14° to — 18°, which was observed under his direction from 1892 to 1894. H. L. RICE, formerly assistant astronomer at the observatory, has been appointed to the professorship vacated by this retirement, and H. R. MORGAN succeeds Mr. RICE in the position of assistant astronomer. The organization of the work of the observatory has been changed in the direction of the consolidation of the work, and Professor W. S. EICHELBERGER, U. S. N., has been placed in charge of all the astronomical work of the observatory.

The Committee of the French Academy of Sciences having scientific control of the French geodetic operations on the equator has reported the completion of the remeasurement of the historic arc in Peru.

M. MAURICE LOEWY, director of the Paris Observatory, born in Vienna in 1833, died on October 15th, while attending a meeting of the national board of French observatories of the Ministry of Public Instruction.

Dr. RALPH H. CURTISS, formerly of the Lick and more recently of the Allegheny Observatory, has been appointed assistant professor of astrophysics in the University of Michigan.

Asaph Hall.—The death is announced of ASAPH HALL, professor of mathematics U. S. N. (retired). Professor HALL was born at Goshen, Conn., October 15, 1829. The early years of his manhood were devoted to teaching school, and it was not until he had reached the mature age of twenty-eight years that his astronomical career was begun as student and assistant at Harvard College Observatory. He entered the Naval Observatory in 1862, and remained in continuous connection with that institution until his retirement in 1891. Professor HALL had the use of the 26-inch refractor at the Naval Observatory, which, at the time it was completed, was the largest refractor in the world. His attention was given chiefly to the measurement of double stars and the satellites of the solar system. Professor HALL also investigated the orbits of several of the satellites, but his name will be longest remembered as the discoverer of the two tiny moons of *Mars*.

Dr. ELIS STRÖMGREN, Privatdozent in the University of Kiel, has been appointed professor and Director of the observatory in Copenhagen, in the place of Professor T. N. THIELE, who has retired.

NEW PUBLICATIONS.

COOKSON, BRYAN. Determination of the elements of the orbits of *Jupiter's* satellites from photographs taken at the Cape in 1902. Edinburgh. 1907. 4to; 122 pp. Paper. 3s.

DUNÉR, N. C. Ueber die Rotation der Sonne, zweite Abhandlungen. Upsala: Akademische Buchhandlung. 1907. 4to; 64 pp. Paper.

HEDRICK, H. B. Catalogue of zodiacal stars for 1900 and 1920 reduced to an absolute system. Astronomical papers prepared for the use of the American Ephemeris and Nautical Almanac, Vol. VIII, Part III. Washington: Bureau of Equipment, Navy Department. 1905. 4to; 190 pp. Paper.

KAMENSKIJ et E. KOROLIKOV. Les éléments approchés et l'éphéméride de la comète d'Encke. Bulletin de l'Académie Impériale des Sciences. St. Petersburg. 1907. Large 8vo; 8 pp. Paper.

A catalogue of 420 standard stars mostly between 31° and 41° south declination for the equinox 1905.0, from observations made at the Perth Observatory, Western Australia, under the direction of W. ERNEST COOKE. Perth. 1907. 4to; 13 pp. Cloth.

Astronomical and magnetical and meteorological observations made at the Royal Observatory, Greenwich, in the year 1905. Edinburgh. 1907. 4to. Cloth.

Etude de l'atmosphère. Observatoire Constantin. Fascicule II. St. Petersburg. 1906. 4to; ix + 45 + 92 pp. Paper.